

## LISTING OF THE CLAIMS

The following listing, if entered, replaces all prior versions of the claims in the present application.

1. (Currently Amended) A method comprising:  
 receiving a packet, the packet comprising a multicast destination address,  
wherein the receiving is performed by a first line card in a first virtual network device sub-unit; and  
 sending a copy of the packet to a second virtual network device sub-unit via a virtual network device link, wherein  
 the virtual network device link couples ~~two~~ the first virtual network device sub-unit and the second virtual network device [[sub-units]] sub-unit,  
 the ~~two~~ first virtual network device sub-unit and the second virtual network device [[sub-units]] sub-unit are configured to operate as a single virtual network device within a network,  
 the virtual network device is configured to perform Layer 2 forwarding to forward the packet to ~~other layers~~ one or more network devices within [[a]] the network, and  
 the sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.
  
2. (Cancelled)
  
3. (Previously Presented) The method of claim 1, further comprising:  
 receiving a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and  
 replicating the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

4. (Original) The method of claim 3, further comprising:  
sending at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.
5. (Original) The method of claim 3, further comprising:  
sending at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein the second packet is being conveyed in the incoming VLAN.
6. (Original) The method of claim 3, further comprising:  
sending at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.
7. (Original) The method of claim 3, further comprising:  
not sending any copy of the second packet via an uplink interface coupled to a virtual network device bundle.
8. (Previously Presented) The method of claim 1, further comprising:  
receiving a third packet via the virtual network device link, the third packet comprising a unicast destination address; and  
performing an egress lookup for the third packet in response to the receiving the third packet.
9. (Original) The method of claim 8, wherein  
a header associated with the third packet is also received via the virtual network device link,  
the header comprises a destination identifier.
10. (Original) The method of claim 9, further comprising:  
sending the third packet and the header to another line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

11. **(Currently Amended)** The method of claim 9, further comprising:  
 if a primary entry corresponding to the unicast destination address is found during  
 the egress lookup:  
 sending the third packet from an interface on the first line card identified  
 by the primary entry.
12. **(Original)** The method of claim 11, further comprising:  
 sending a notification via the virtual network device link if the destination  
 identifier comprised in the header does not match a destination identifier  
 comprised in the primary entry, wherein  
 the notification identifies the unicast destination address as corresponding  
 to the destination identifier comprised in the primary entry.
13. **(Currently Amended)** A method, comprising:  
 receiving a packet via a virtual network device link, the packet comprising a  
 unicast destination address, wherein  
 the virtual network device link couples ~~two~~ a first virtual network  
 device sub-unit and a second virtual network device [[sub-units]]  
sub-unit, and wherein  
 the ~~two~~ first virtual network device sub-unit and the second  
 virtual network device [[sub-units]] sub-unit are  
 configured to operate as a single virtual network device  
within a network, and  
the virtual network device is configured to perform Layer 2  
forwarding to forward the packet to one or more  
network devices with the network; and  
 performing an egress lookup for the packet in response to the receiving the  
 packet, wherein  
 the performing the egress lookup in a lookup table on a first line card  
 comprises allocating a non-primary entry corresponding to a  
 source address of the packet in the lookup table, if an entry

corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.

14. (Original) The method of claim 13, wherein a header associated with the packet is also received via the virtual network device link,  
the header comprises a destination identifier.
15. (Currently Amended) The method of claim 14, further comprising:  
sending the packet and the header to ~~another~~ the second line card if ~~[[a]]~~ the non-primary entry corresponding to the unicast destination address is found during the egress lookup.
16. (Currently Amended) The method of claim 14, further comprising:  
if a primary entry corresponding to the unicast destination address is found during the egress lookup:  
sending the packet from an interface on the first line card identified by the primary entry.
17. (Original) The method of claim 16, further comprising:  
sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein  
the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.
18. (Original) The method of claim 16, wherein  
the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

19. (Previously Presented) The method of claim 13, further comprising:  
receiving a second packet, the second packet comprising a multicast destination  
address; and  
sending at most one copy of the second packet to one of the two virtual network  
device sub-units via the virtual network device link.
20. (Original) The method of claim 19, further comprising:  
receiving a third packet via the virtual network device link, the third packet  
comprising a second multicast destination address; and  
replicating the third packet for each of a plurality of outgoing VLANs (Virtual  
Local Area Networks) associated with the second multicast destination  
address.
21. (Original) The method of claim 20, further comprising:  
sending at least one copy of the third packet to each line card that includes an  
interface associated with one of the outgoing VLANs.
22. (Original) The method of claim 20, further comprising:  
sending at least one copy of the third packet to each line card that includes an  
interface associated with an incoming VLAN, wherein  
the third packet is being conveyed in the incoming VLAN.
23. (Original) The method of claim 20, further comprising:  
sending at most one copy of the third packet to each line card that includes an  
interface associated with one of the outgoing VLANs.

24. (Currently Amended) A method comprising:  
receiving a packet via a virtual network device link;  
performing one of an ingress lookup and an egress lookup in a lookup table on a first line card for the packet, wherein  
the ingress lookup is performed for the packet if the packet includes a multicast destination address;  
the egress lookup is performed for the packet if the packet includes a unicast destination address, wherein  
the performing the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card; and  
a primary ~~lookup-table~~ entry can be allocated in the lookup table in response to an ingress lookup but not in response to an egress lookup, wherein the primary entry indicates an interface on the first line card.
25. (Original) The method of claim 24, wherein  
the packet includes a multicast destination address, and  
the method further comprises:  
replicating the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.
26. (Original) The method of claim 25, further comprising:  
sending at least one copy of the packet to each line card that includes an interface associated with one of the outgoing VLANs.

27. (Original) The method of claim 25, further comprising:  
sending at most one copy of the packet to each line card that includes an interface  
associated with one of the outgoing VLANs.
28. (Original) The method of claim 25, further comprising:  
not sending any copy of the packet via the virtual network device link.
29. (Original) The method of claim 25, further comprising:  
not sending any copy of the packet via an uplink interface comprised in a uplink  
interface bundle.
30. (Currently Amended) The method of claim 24, wherein  
a header associated with the packet is also received via the virtual network device  
link,  
the header comprises a destination identifier, and  
the packet comprises the unicast destination address, and  
the method further comprises:  
    sending the packet and the header to ~~another~~ the second line card if a  
    non-primary entry corresponding to the unicast destination address  
    is found during the egress lookup.
31. (Currently Amended) The method of claim 30, further comprising:  
if a primary entry corresponding to the unicast destination address is found during  
the egress lookup:  
    sending the packet from an interface identified on the first line card by  
    the primary entry corresponding to the unicast destination  
    address.

32. (Currently Amended) The method of claim [[30]] 31, further comprising:

sending a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry corresponding to the unicast destination address, wherein

the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry corresponding to the unicast destination address.

33. (Original) The method of claim 30, wherein the packet is only sent from the interface if the interface is not comprised in a uplink interface bundle.

34. (Currently Amended) A system comprising:

an interface to a virtual network device link, wherein

the interface is configured to receive a packet,

the virtual network device link couples ~~two~~ a first virtual network device sub-unit and a second virtual network device sub-unit, and

the ~~two first virtual network device sub-unit and the second~~ virtual network device sub-unit are configured to operate as a single virtual network device within a network, and the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices with the network; and

a distributed forwarding module coupled to the interface, wherein

the distributed forwarding module is configured to forward perform one of an ingress lookup and an egress lookup in a lookup table on a first line card for the packet, wherein



the distributed forwarding module is configured to perform an ingress lookup for the packet if the packet includes a multicast destination address, and

the distributed forwarding module is configured to perform an egress lookup for the packet if the packet includes a unicast destination address, **wherein performance of the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card; and a primary entry can be allocated in the lookup table in response to an ingress lookup but not in response to an egress lookup, wherein the primary entry indicates an interface on the first line card.**

35. (Cancelled)

36. (Original) The system of claim 34, wherein the packet includes a multicast destination address, and the distributed forwarding module is configured to replicate the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.

37. (Currently Amended) The system of claim 34, further comprising: one **[[of]] or** more line cards, wherein the distributed forwarding module is configured to send at least one copy of the packet to each of the one or more line cards that includes an interface associated with one of the outgoing VLANs.

38. (Previously Presented) The system of claim 34, further comprising:  
one or more line cards, wherein  
the distributed forwarding module is configured to send at most one copy of the  
packet to each line card that includes an interface associated with one of  
the outgoing VLANs.
39. (Previously Presented) The system of claim 34, further comprising:  
a second interface configured to receive a second packet, wherein  
the second packet comprises a second multicast address, and  
the distributed forwarding module is configured to send at most one copy  
of the second packet via the virtual network device link.
40. (Currently Amended) The system of claim 34, wherein  
a header associated with the packet is also received via the virtual network device  
link,  
the header comprises a destination identifier, and  
the packet comprises the unicast destination address, and  
the distributed forwarding module is configured to send the packet and the header  
to ~~another~~ the second line card if a non-primary entry corresponding to  
the unicast destination address is found during the egress lookup.
41. (Currently Amended) The system of claim 40, further comprising:  
a second interface on the first line card, wherein  
the distributed forwarding module is configured to send the packet from  
the second interface if a primary entry corresponding to the unicast  
destination address is found during the egress lookup and if the  
primary entry corresponding to the unicast destination address  
identifies the second interface.
42. (Currently Amended) The system of claim ~~[[40]]~~ 41, wherein

the distributed forwarding module is configured to send a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry corresponding to the unicast destination address, and the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry corresponding to the unicast destination address.

43. (Currently Amended) A system comprising:

means for receiving a packet, the packet comprising a multicast destination address, wherein a first line card in a first virtual network device comprises the means for receiving; and

means for sending a copy of the packet to a second virtual network device sub-unit via a virtual network device link, wherein

the virtual network device link couples ~~two~~ the first and the second virtual network device sub-units,

the ~~two first and the second~~ virtual network device sub-units are configured to operate as a single virtual network device within a network.

the virtual network device is configured to perform Layer 2 forwarding to forward the packet to ~~other-layers one or more network devices~~ within [[a]] the network, and

the means for sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.

44. (Cancelled)

45. (Previously Presented) The system of claim 43, further comprising:  
means for receiving a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and

means for replicating the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

46. (Original) The system of claim 45, further comprising:  
means for sending at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

47. (Original) The system of claim 45, further comprising:  
means for sending at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein the second packet is being conveyed in the incoming VLAN.

48. (Original) The system of claim 45, further comprising:  
means for sending at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

49. (Previously Presented) The system of claim 43, further comprising:  
means for receiving a third packet via the virtual network device link, the third packet comprising a unicast destination address; and  
means for performing an egress lookup for the third packet in response to the receiving the third packet.

50. (Currently Amended) A system comprising:  
means for receiving a packet via a virtual network device link, the packet comprising a unicast destination address, wherein  
the virtual network device link couples ~~two~~ a first virtual network device sub-unit and a second virtual network device [[sub-units]] sub-unit, and wherein  
the ~~two~~ first virtual network device sub-unit and the second virtual network device [[sub-units]] sub-unit are

configured to operate as a single virtual network device  
within a network, and  
the virtual network device is configured to perform Layer 2  
forwarding to forward the packet to one or more  
network devices with the network; and

means for performing an egress lookup for the packet in a lookup table on a first  
line card in response to receipt of the packet, wherein  
the means for performing the egress lookup comprises means for  
allocating a non-primary entry corresponding to a source address  
of the packet in the lookup table, if an entry corresponding to the  
source address has not already been allocated, wherein the  
non-primary entry indicates a second line card.

51. (Original) The system of claim 50, wherein  
a header associated with the packet is also received via the virtual network device  
link,  
the header comprises a destination identifier obtained by performing an ingress  
lookup for the packet.
52. (Currently Amended) The system of claim 51, further comprising:  
means for sending the packet and the header to another the second line card if  
[[a]] the non-primary entry corresponding to the unicast destination  
address is found during the egress lookup.
53. (Currently Amended) The system of claim 51, further comprising:  
means for sending the packet from an interface on the first line card identified  
by a primary entry, if the primary entry corresponding to the unicast  
destination address is found during the egress lookup.
54. (Original) The system of claim 53, further comprising:

means for sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

55. (Original) The system of claim 53, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

56. (Previously Presented) The system of claim 51, further comprising: means for receiving a second packet, the second packet comprising a multicast destination address; and means for sending at most one copy of the second packet to one of the two virtual network device sub-units via the virtual network device link.

57. (Currently Amended) A computer readable medium storing a program, the program comprising program instructions executable to: detect reception of a packet by a first line card in a first virtual network device sub-unit, the packet comprising a multicast destination address; and send a copy of the packet to a second virtual network device sub-unit via a virtual network device link, wherein the virtual network device link couples ~~two~~ the first virtual network device sub-unit and the second virtual network device [[sub-units]] sub-unit, the ~~two first virtual network device sub-unit and the second~~ virtual network device [[sub-units]] sub-unit are configured to operate as a single virtual network device within a network, the virtual network device is configured to perform Layer 2 forwarding to forward the packet to other layers one or more network devices within [[a]] the network, and

sending comprises sending at most one copy of the packet from one virtual network device sub-unit to another via the virtual network device link.

58. (Cancelled)

59. (Previously Presented) The computer readable medium of claim 57, wherein the program instructions are further executable to:  
detect reception of a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and  
replicate the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

60. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:  
send at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

61. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:  
send at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein  
the second packet is being conveyed in the incoming VLAN.

62. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:

send at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

63. (Previously Presented) The computer readable medium of claim 57, wherein the program instructions are further executable to:

detect reception of a third packet via the virtual network device link, the third packet comprising a unicast destination address; and

perform an egress lookup for the third packet in response to the receiving the third packet.



64. (Currently Amended) A computer readable medium storing a program, the program comprising program instructions executable to:
- detect reception of a packet via a virtual network device link, the packet comprising a unicast destination address, wherein
  - the virtual network device link couples ~~two~~ a first virtual network device sub-unit and a second virtual network device ~~[[sub-units]] sub-unit~~, and wherein
  - the ~~two first virtual network device sub-unit and the second~~ virtual network device ~~[[sub-units]] sub-unit~~ are configured to operate as a single virtual network device within a network, and
  - the virtual network device is configured to perform Layer 2 forwarding to forward the packet to one or more network devices with the network; and
  - perform an egress lookup for the packet in response to receipt of the packet, wherein
  - performing the egress lookup in a lookup table on a first line card comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table, if an entry corresponding to the source address has not already been allocated, wherein the non-primary entry indicates a second line card.
65. (Original) The computer readable medium of claim 64, wherein a header associated with the packet is also received via the virtual network device link,
- the header comprises a destination identifier.

66. **(Currently Amended)** The computer readable medium of claim 65, wherein the program instructions are further executable to:
- send the packet and the header to ~~another~~ the second line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.
67. **(Currently Amended)** The computer readable medium of claim 65, wherein the program instructions are further executable to:
- send the packet from an interface on the first line card identified by a primary entry, if the primary entry corresponding to the unicast destination address is found during the egress lookup.
68. **(Original)** The computer readable medium of claim 67, wherein the program instructions are further executable to:
- send a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.
69. **(Original)** The computer readable medium of claim 67, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.
70. **(Original)** The computer readable medium of claim 65, wherein the program instructions are further executable to:
- detect reception of a second packet, the second packet comprising a multicast destination address; and
  - send at most one copy of the second packet to a virtual network device sub-unit via a virtual network device link, the virtual network device sub-unit comprised in a virtual network device.